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## PATENT ABSTRACTS OF JAPAN

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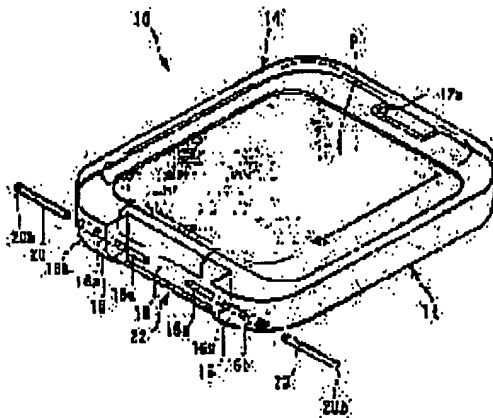
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### (54) COSMETIC CONTAINER



#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a cosmetic container capable of eliminating the detachment and facilitating segregated disposal by making a hinge pin of synthetic resin similarly to a container main body and a lid body and improving the appearance of the cosmetic container from the view point of coloring and texture not obtainable by a conventional metallic pin by turning the hinge pin made of the synthetic resin to the same color and the same material as at least one of the container main body and the lid body.

**SOLUTION:** A hinge 22 is constituted by inserting a pair of the hinge pins 20 from both sides over both of first and second projection parts 16 and 18 in the state of fitting a pair of the first

projection parts 16 projectingly provided from the rear end part of the container main body 12 and the second projection part 18 projectingly provided from the rear end part of the lid body. The hinge pin 20 is formed of the synthetic resin similarly to the container main body 12 and the lid body 14. The hinge pin 20 is formed of the synthetic resin of the same color and the same material as the first projection parts 16 where the outer end part 20b is positioned, that is the container main body 12.

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## CLAIMS

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[Claim(s)]

[Claim 1] In the charge container of makeup which inserted in the hinge pin which is equipped with the body of a container made of the synthetic resin with which the charge of makeup is contained, and the lid made of synthetic resin which open and close this body of a container, and opens and closes this lid ranging over between the edges of the body of these containers, and a lid The charge container of makeup characterized for the color of this hinge pin by the thing of the above-mentioned body of a container, and the above-mentioned lid carried out to either and the same color at least while forming the above-mentioned hinge pin with synthetic resin.

[Claim 2] While inserting in the hinge pin which is equipped with the body of a container made of the synthetic resin with which the charge of makeup is contained, and the lid made of synthetic resin which open and close this body of a container, and opens and closes this lid ranging over between the edges of the body of these containers, and a lid At least, while forming the above-mentioned hinge pin with synthetic resin in the charge container of makeup of this body of a container, and this lid in which either is formed with the transparent body The charge container of makeup characterized by forming this hinge pin with the transparent body of the above-mentioned body of a container, and the above-mentioned lid which forms either at least, and the transparent body of the same color.

[Claim 3] The above-mentioned hinge pin is a charge container of makeup according to claim 1 or 2 characterized by being formed with the above-mentioned body of a container or the above-mentioned lid, and this quality of the material.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

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synthetic resin with which a lid is hinged on the body of a container through a hinge pin.  
[0002]

[Description of the Prior Art] It opens and closes the body bottom of a container in the back end section of the body of a container with the lid by which hinge association is carried out, and although the charge container of makeup called a compact is generally used for portable [ of the charge of makeup ], this charge container of makeup seals this body of a container in the state of that closedown while it contains the charge of makeup in the body of a container.

[0003] While the body of a container and a lid are formed with synthetic resin and the above-mentioned charge container of makeup attains easy-ization of a moldability, lightweight-izing of the whole container and ornamental diversification are attained.

[0004]

[Problem(s) to be Solved by the Invention] However, if it is in this conventional charge container of makeup, also when the body of a container and a lid are formed with synthetic resin, as for the hinge pin used as the center of rotation of a hinge, being formed with a metal is common. By the way, although it is discarded as dust when such a charge container of makeup becomes used or it is damaged, as for such a synthetic-resin product especially, it is desirable that it can collect separately for the recycle called for in recent years. However, as mentioned above, since a hinge pin is metal to the body of a container and lid made of synthetic resin, it is necessary to remove this hinge pin on the occasion of collection of classified refuse, and to process. Since especially this hinge pin was in the condition of having been pushed into the interior of a hinge in the state of press fit, in order to take out a hinge pin, it needed to destroy a part for a hinge region each time, and had the technical problem that removal of this hinge pin took great time and effort.

[0005] Then, while accomplishing this invention in view of this conventional technical problem, making the removal unnecessary for a hinge pin as a product made of synthetic resin like the body of a container, and a lid and making collection of classified refuse easy It aims at offering the charge container of makeup which enabled it to improve the appearance of the charge container of makeup from the point of the coloring and texture which cannot obtain the above-mentioned hinge pin made into the product made of synthetic resin at least by the conventional metal pin as either, the same color, as a result this quality of the material of the body of a container, and a lid.

[0006]

[Means for Solving the Problem] The charge container of makeup shown in claim 1 of this invention in order to attain this purpose In the charge container of makeup which inserted in the hinge pin which is equipped with the body of a container made of the synthetic resin with which the charge of makeup is contained, and the lid made of synthetic resin which open and close this body of a container, and opens and closes this lid ranging over between the edges of the body of these containers, and a lid While forming the above-mentioned hinge pin with synthetic resin, the color of this hinge pin is made into either and the same color even if there are few above-mentioned bodies of a container and above-mentioned lids.

[0007] Moreover, the charge container of makeup shown in claim 2 of this invention While

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synthetic resin with which the charge of makeup is contained, and the lid made of synthetic resin which open and close this body of a container, and opens and closes this lid ranging over between the edges of the body of these containers, and a lid At least, while forming the above-mentioned hinge pin with synthetic resin in the charge container of makeup of this body of a container, and this lid in which either is formed with the transparent body, this hinge pin is formed with the transparent body of the above-mentioned body of a container, and the above-mentioned lid which forms either at least, and the transparent body of the same color.

[0008] Furthermore, the charge container of makeup shown in claim 3 of this invention forms the above-mentioned hinge pin with the above-mentioned body of a container or the above-mentioned lid, and this quality of the material.

[0009] Since the hinge pin which hinges the body of a container and a lid in claim 1 was formed with synthetic resin like the body of these containers, and the lid when the above configuration described the operation of the charge container of makeup of this invention below, in case the charge container of makeup is discarded as dust, the need of removing a hinge pin each time is lost, and collection of classified refuse becomes easy. Moreover, the end face of this hinge pin melts into a surrounding tint, it becomes impossible to be conspicuous in the color of a hinge pin, where [ of the body of a container, and a lid ] a hinge pin is attached, since it was made either and the same color at least, the appearance of the charge container of makeup can be improved from the field of coloring by this, and commodity value can be raised.

[0010] Moreover, like [ in claim 2 ] above-mentioned claim 1, since the hinge pin was formed with synthetic resin like the body of a container, and the lid, collection of classified refuse becomes easy. Moreover, since either [ at least ] the body of a container or the lid formed the hinge pin to the charge container of makeup formed with the transparent body with the transparent body of the body of a container, and a lid which forms either at least, and the transparent body of the same color, a hinge pin is \*\*\* (ed) by one even if the body of a container or a lid is the transparent body. The appearance of the charge container of makeup which has a transparence part can be improved by this, and commodity value can be raised.

[0011] Furthermore, in claim 3, since the hinge pin was formed with the body of a container or a lid, and this quality of the material, while being able to form in the same die the counterdie of the body of a container or lid which is this quality of the material, and a hinge pin, being able to fabricate to coincidence and being able to reduce a shaping man day, the cost which a die takes can be fallen and cheap-ization of a product unit price can be attained. Moreover, a hinge pin melts in quality of the material the surroundings of it, it becomes impossible to be conspicuous, the appearance of the charge container of makeup can be improved from the field of texture by this, and commodity value can be raised.

[0012]

[Embodiment of the Invention] Hereafter, the operation gestalt of this invention is explained to a detail with reference to an accompanying drawing. The fluoroscopy perspective view as which drawing 7 indicated 1 operation gestalt of the charge container of makeup of this invention to be from drawing 1 , and drawing 1 regarded the

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cross-section top view which cut drawing 2 from the hinge pin part, the important section expansion top view in which in a central cross-section side elevation and drawing 4 the expansion perspective view of a hinge pin and drawing 5 show the expansion end view of a hinge pin, and drawing 6 shows [ drawing 3 ] the anchoring condition of a hinge pin, and drawing 7 are the important section expansion top views showing the other examples of the anchoring condition of a hinge pin.

[0013] As shown in drawing 3 from drawing 1, it has the body 12 of a container formed in dished in order that the charge container 10 of makeup of this operation gestalt might contain the charge P of makeup, and the lid 14 which open and close this body 12 of a container, and the body 12 of these containers and a lid 14 are formed with synthetic resin, respectively.

[0014] While the 1st height 16 of a pair protrudes on the back end section (before [ the drawing 1 metacarpus ] side) of the body 12 of a container from a both-sides edge, the 2nd height 18 by which fitting is carried out among these 1st heights 16 protrudes in the center of the back end section of a lid 14. And in the condition of having fitted in these 1st heights 16 and the 2nd height 18, by inserting in the hinge pin 20 of a pair ranging over the 1st and 2nd height 16 and 18 both from both sides, a hinge 22 is constituted and a lid 14 is hinged free [ closing motion ] focusing on this hinge 22 20, i.e., a hinge pin.

[0015] Hook 24 is constituted between the front end sections (left end section in drawing 3) of the above-mentioned body 12 of a container, and the above-mentioned lid 14, and the closedown condition of a lid 14 is held in the state of engagement of this hook 24.

The above-mentioned hook 24 consists of 1st projection 24a formed in the posterior wall of stomach of crevice 12a formed in the front end section of the body 12 of a container, and 2nd projection 24b installed from the front end section of a lid 14, and these 1st projection 24a and 2nd projection 24b can engage and release with the resiliency of this 2nd projection 24b.

[0016] Moreover, the spacer 26 which had the predetermined thickness which is close to the upper limit of the above-mentioned body 12 of a container in the state of the closedown of this lid 14 in the rear face of the above-mentioned lid 14 is attached, and the inside of the body 12 of a container with which the above-mentioned charge P of makeup is contained is sealed. As this spacer 26, you may constitute as packing, and it is good also as a makeup mirror.

[0017] As shown in drawing 4, the above-mentioned hinge pin 20 covers an overall length, is formed in the shape of [ of the diameter of said / long and slender ] a rod, and it serves as a noncircular section which the cross-section configuration separated spacing suitably to the hoop direction as shown in drawing 5, and formed flat-surface 20a. On the other hand, the pin holes 16a and 18a formed in the 1st height 16 of the above and the 2nd height 18 are formed as a circular cross section, and the above-mentioned hinge pin 20 of a noncircular section is close to the pin holes 16a and 18a of this circular cross section, and they are pressed fit in them. Moreover, as shown in drawing 2, in a way edge, predetermined die-length L is covered outside the above-mentioned pin hole 16a, and peep hole 16b of a major diameter is formed a little from the hinge pin 20, and it functions as a guide hole at the time of this peep hole 16b inserting the hinge pin 20.

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body 12 of a container, and the above-mentioned lid 14. And the hinge pin 20 formed with synthetic resin in this way is formed with the synthetic resin of this quality of the material while forming it in the 1st height 16 12 in which way edge 20b is located outside this, i.e., the body of a container, and the same color.

[0019] That is, with this operation gestalt, injection molding is carried out using a die, and two or more kinds exist as the quality of the material of this synthetic resin suitable for carrying out injection molding, for example, the body 12 of a container and a lid 14 have the quality of the materials, such as polypropylene, ABS, styrol, and AS, generally it chooses from the quality of the material of these two or more classes suitably, and the above-mentioned body 12 of a container and the above-mentioned lid 14 are formed.

And in this operation gestalt, the above-mentioned hinge pin 20 will be formed in the above-mentioned body 12 of a container, this quality of the material, and the same color. Moreover, although you may form with the quality of the material which may form the above-mentioned lid 14 with the body 12 of a container, and this quality of the material, and is different, it is more desirable to form especially with this quality of the material.

[0020] When the mechanical property of the above-mentioned synthetic resin used for injection molding is shown here, for \*\*\*\* yield strength, with polypropylene, 240-300 (Kgf/cm<sup>2</sup>), and a bending elastic modulus are [ 9,500-11,500 (Kgf/cm<sup>2</sup>), and impact strength ] 4.5 to 18 (Kgf and cm/cm) extent. For tensile strength, in ABS, 410-600 (kg/cm<sup>2</sup>), and a bending elastic modulus are [ 18,000-28,500 (kg/cm<sup>2</sup>), and impact strength ] five to 20 (kg-cm/cm) extent. For tensile strength, with styrol, 3,000-6,300 (p. s.i.), and bending strength are [ 4,500-8,100 (p. s.i.), and impact strength ] 0.4 to 1.1 (ft-lb/in) extent. For tensile strength, in AS, 740-820 (kg/cm<sup>2</sup>), and bending strength are [ 1,000-1,100 (kg/cm<sup>2</sup>), and impact strength ] 1.4 to 1.7 (kg-cm/cm) extent.

[0021] If it is in the charge container 10 of makeup of this operation gestalt by the above configuration, as it was indicated in drawing 1 as the body 12 of a container and lid 14 which were formed by injection molding of synthetic resin, respectively, the 1st height 16 and the 2nd height 18 are arranged so that coaxial arrangement of the pin holes 16a and 18a may be carried out, and as the hinge pin 20 shows drawing 6 in this condition, it is devoted between pin hole 16a and 18a through a fixture 30. Since peep hole 16b is formed in pin hole 16a at this time, the hinge pin 20 is guided smoothly at pin hole 16a, and insertion of this hinge pin 20 becomes easy. Moreover, since this crookedness is regulated by the above-mentioned peep hole 16b also when it is devoted as by forming the hinge pin 20 with synthetic resin shows to drawing 7, and sometimes crooked, the hinge pin 20 can be guided into pin hole 16a, without deforming greatly.

[0022] And by inserting the above-mentioned hinge pin 20 in the state of press fit ranging over the 1st and 2nd height 16 and 18, by either of these 1st and 2nd heights 16 and 18, the hinge pin 20 is fixed at the time of closing motion of a lid 14, and relative rotation of another side and the hinge pin 20 is carried out with predetermined rotational resistance at it. For this reason, as for a lid 14, a fleece top function is added by this rotational resistance, and it can be made to stand it still by it in the rotation location of arbitration. Especially, contact to the hinge pin 20 and pin holes 16a and 18a can obtain the fleece top engine performance of a soft touch from being based on the friction contact catalysis of the synthetic resin which have an elasto-plasticity-property. Since

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this time, the stress generated by friction at the time of relative rotation in a these flat-surfaces 20a part can be missed, and, thereby, endurance, such as the abrasion resistance of the hinge pin 20 and torsion-proof deformability, can be improved.

[0023] By the way, since the above-mentioned hinge pin 20 was formed with synthetic resin like the body 12 of a container, and the lid 14 and the need of removing the hinge pin 20 according to the excessive activity of destroying hinge 22 part each time is lost in case it discards by collection of classified refuse by using the charge container 10 of makeup as dust by used [ of the charge P of makeup ] etc., collection of classified refuse becomes remarkably easy.

[0024] Moreover, since the above-mentioned hinge pin 20 was formed in the body 12 of a container, and the same color at least, the end face of the hinge pin 20 melts into a surrounding tint, and it becomes impossible to be conspicuous, it can improve the appearance of the charge container 10 of makeup from the field of coloring by this, and can raise commodity value.

[0025] Furthermore, since the above-mentioned hinge pin 20 was formed with the body 12 of a container, and this quality of the material, while being able to form the counterdie of the body 12 of these containers, and the hinge pin 20 in the same die, being able to carry out injection molding to coincidence and being able to reduce a shaping man day, the cost which a die takes can be fallen and cheap-ization of a product unit price can be attained. Since injection molding of the body 12 of these containers, a lid 14, and the above-mentioned hinge pin 20 can be carried out with the same die when the body 12 of a container and a lid 14 are formed with the same color and this quality of the material at this time, the further cheap-ization of the charge container 10 of makeup can be attained. Moreover, the hinge pin 20 melts also in quality of the material the surroundings of it, it becomes impossible to be conspicuous, the appearance of the charge container 10 of makeup can be improved also from the field of texture by this, and commodity value can be raised.

[0026] Although the case where the body 12 of these containers and the hinge pin 20 were formed with the same color and this quality of the material was indicated in the hinge 22 above-mentioned part since way edge 20b was located in this 1st height 16 outside this hinge pin 20 on the relation by which the 1st height 16 is arranged on the maximum outside When the 2nd height 18 which protrudes from a lid 14 is arranged on the maximum outside of hinge 22 part, the hinge pin 20 will be formed with a lid 14, the same color, and this quality of the material.

[0027] By the way, it not only forms the above-mentioned body 12 of a container, and the above-mentioned lid 14 with the opaque body, but it can raise design worth of the charge container 10 of makeup by forming with the synthetic resin of transparence. Namely, what is necessary is just to, form this hinge pin 20 with a lid 14 and the transparent body of the same color on the other hand, at least, in such a case, although the hinge pin 20 sees through this lid 14 and comes to appear, when [ of the body 12 of a container and a lid 14 ] a lid 14 is formed with the transparent body so that for example, the charge P of makeup may see through and it may be visible.

[0028] Therefore, although the hinge pin 20 will see through and appear through the lid 14 of the transparent body in this case, since both integrate into one and are visually

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appearance of the charge container 10 of makeup which only the hinge pin 20 comes floating and is not conspicuous unlike a metal case, and has a transparence part by this can be kept good.

[0029] Moreover, although the case where it formed in a non-circle configuration by forming flat-surface 20a in drawing 5 about the cross-section configuration of the above-mentioned hinge pin 20 was indicated protruding line 20c can be formed in a periphery, or as it is alike other than this, and many cross-section configurations can be considered, for example, it is shown in drawing 8, the configuration of this noncircular section can form 20d of curvature change parts in a peripheral face, as shown in drawing 9, and even if it is in these, it can secure the same function.

[0030] Drawing 12 shows other operation gestalten of this invention from drawing 10, and the explanation which gives the same sign to the same component as the above-mentioned operation gestalt, and overlaps it is omitted and described. It is the important section expansion top view in which the cross-section top view and drawing 11 which cut drawing 10 from a part for a hinge region showing a central cross-section side elevation, and showing [ 1212 ] the anchoring condition of a hinge pin.

[0031] namely, die-length L of peep hole 16b of pin hole 16a which formed in the 1st height 16 the point that this operation gestalt mainly differed from the above-mentioned operation gestalt — at least — the die length of the hinge pin 20, and abbreviation — it is the same or is in the point formed more than it.

[0032] Therefore, with this operation gestalt, since this whole hinge pin 20 is contained in the above-mentioned peep hole 16b in case the hinge pin 20 is driven into pin hole 16a, in case a way edge is pressed with a fixture 30 outside this hinge pin 20, it can prevent that the hinge pin 20 is crooked. For this reason, since the hinge pin 20 can be more strongly pressed with a fixture 30, anchoring of the hinge pin 20 can be completed to the inside of a short time, and that attachment workability can be improved sharply.

[0033] Of course, cheap-ization can be attained, while the above-mentioned hinge pin 20 forms the 1st height 16 of the above with the body 12 of a container, the same color, and this ingredient which protruded and can improve the appearance of the charge container 10 of makeup, even if it is in this operation gestalt. Moreover, when a lid 14 is formed with the transparent body, it is desirable to form the hinge pin 20 with a lid 14 and the transparent body of the same color.

[0034] By the way, although each above-mentioned operation gestalt explained taking the case of the charge container 10 of makeup of the general easiest structure What prepared the pan in a refill of the charge of makeup in the body 12 of a container, without, of course restricting to this charge container 10 of makeup, and the thing which prepared the stowage of a makeup implement, Moreover, it is free the thing of the gestalt which contains a REFIRU container, and to have other functions further. In short, if each is the charge container of makeup by which hinge association of the body 12 of a container and lid 14 made of synthetic resin is carried out by the hinge pin 20, this invention can be applied and this invention can be applied also to the REFIRU container of the still more nearly same configuration. Moreover, one pair of 2nd height 18 of a lid 14 can be formed also as a configuration of a hinge 22, and the 1st height 16 of the body 12 of a container can also be arranged among them.



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[Effect of the Invention] If it was in the charge container of makeup of claim 1 of this invention as explained above, since the hinge pin which hinges the body of a container and a lid was formed with synthetic resin like the body of these containers, and the lid, in case the charge container of makeup is discarded as dust, it can collect separately easily by losing the need of removing a hinge pin each time.

[0036] Moreover, the end face of this hinge pin melts into a surrounding tint, it becomes impossible to be conspicuous in the color of a hinge pin, where [ of the body of a container, and a lid ] a hinge pin is attached, since it was made either and the same color at least, the appearance of the charge container of makeup can be improved from the field of coloring by this, and commodity value can be raised.

[0037] Moreover, like above-mentioned claim 1, if it is in the charge container of makeup of claim 2 of this invention, since the hinge pin was formed with synthetic resin like the body of a container, and the lid, -izing of the collection of classified refuse can be carried out [ easy ].

[0038] Moreover, since either [ at least ] the body of a container or the lid formed the hinge pin to the charge container of makeup formed with the transparent body with the transparent body of the body of a container, and a lid which forms either at least, and the transparent body of the same color, even if the body of a container or a lid is the transparent body, a hinge pin will be \*\*\*\*(ed) by one, the appearance of the charge container of makeup which has a transparence part by this can be improved, and commodity value can be raised.

[0039] Furthermore, while being able to form in the same die the counterdie of the body of a container or lid which is this quality of the material, and a hinge pin, being able to fabricate to coincidence and being able to reduce a shaping man day since the hinge pin was formed with the body of a container or a lid, and this quality of the material if it is in the charge container of makeup of claim 3 of this invention, the cost which a die takes can be fallen and cheap-ization of a product unit price can be attained.

[0040] Moreover, a hinge pin melts in quality of the material the surroundings of it, it becomes impossible to be conspicuous, the appearance of the charge container of makeup can be improved from the field of texture by this, and commodity value can be raised.

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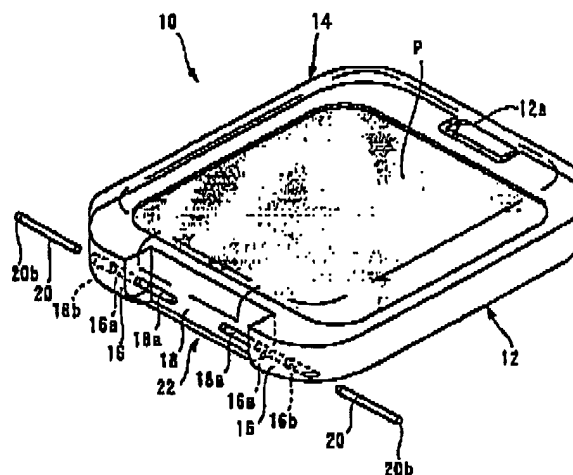
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(54) 【発明の名称】 化粧料容器

(57) 【要約】

【課題】 蝶番ピンを容器本体および蓋体と同様に合成樹脂製として、その取り外しを不要にして分別収集を容易にするとともに、合成樹脂製とした上記蝶番ピンを容器本体および蓋体の少なくともいずれか一方と同色、ひいては同材質として、従来の金属製ピンでは得られない着色、質感の点から、化粧料容器の外観を向上できるようにした化粧料容器を提供する。

【解決手段】 容器本体12の後端部から突設した一对の第1突起部16と、蓋体14の後端部から突設した第2突起部18とを嵌合した状態で、両側から一对の蝶番ピン20を第1、第2突起部16、18両者に跨って挿通してヒンジ22を構成する。蝶番ピン20を容器本体12および蓋体14と同様に合成樹脂によって形成する。蝶番ピン20はこれの外方端部20bが位置する第1突起部16、つまり容器本体12と同色で、同材質の合成樹脂によって形成する。



## 【特許請求の範囲】

【請求項1】 化粧料が収納される合成樹脂製の容器本体と、該容器本体を開閉する合成樹脂製の蓋体とを備え、これら容器本体と蓋体の端部間に跨って該蓋体を開閉する蝶番ピンを挿通した化粧料容器において、上記蝶番ピンを合成樹脂で形成するとともに、該蝶番ピンの色を、上記容器本体および上記蓋体の少なくともいずれか一方と同色にしたことを特徴とする化粧料容器。

【請求項2】 化粧料が収納される合成樹脂製の容器本体と、該容器本体を開閉する合成樹脂製の蓋体とを備え、これら容器本体と蓋体の端部間に跨って該蓋体を開閉する蝶番ピンを挿通するとともに、該容器本体および該蓋体の少なくともいずれか一方が透明体で形成される化粧料容器において、上記蝶番ピンを合成樹脂で形成するとともに、該蝶番ピンを、上記容器本体および上記蓋体の少なくともいずれか一方を形成する透明体と同色の透明体で形成したことを特徴とする化粧料容器。

【請求項3】 上記蝶番ピンは、上記容器本体または上記蓋体と同材質で形成されることを特徴とする請求項1または2に記載の化粧料容器。

## 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】 本発明は、容器本体に蓋体が蝶番ピンを介して蝶着される合成樹脂製の化粧料容器に関する。

## 【0002】

【従来の技術】 一般に、化粧料の携帯用にコンパクトと称される化粧料容器が用いられるが、この化粧料容器は容器本体内に化粧料を収納するとともに、容器本体の後端部にヒンジ結合される蓋体で容器本体上側を開閉して、その閉止状態で該容器本体を密閉するようになっている。

【0003】 上記化粧料容器は、容器本体および蓋体共に合成樹脂によって形成され、成形性の容易化を図るとともに、容器全体の軽量化や装飾の多様化が図られている。

## 【0004】

【発明が解決しようとする課題】 しかしながら、かかる従来の化粧料容器にあっては、合成樹脂によって容器本体および蓋体が形成された場合にも、ヒンジの回転中心となる蝶番ピンは金属によって形成されるのが一般的となっている。ところで、このような化粧料容器は、使用済みとなったり、または破損された場合等にゴミとして廃棄されるが、このような合成樹脂製品は、近年特に求められているリサイクルのために分別収集できることが望ましい。ところが、上述したように合成樹脂製の容器本体および蓋体に対して、蝶番ピンが金属製であるために、分別収集に際してこの蝶番ピンを取り外して処理する必要がある。特に、この蝶番ピンはヒンジの内部に圧

入状態で押し込まれた状態にあるため、蝶番ピンを取り出すためにはその都度ヒンジ部分を破壊する必要がある、この蝶番ピンの取り外しに多大な手間がかかるという課題があった。

【0005】 そこで、本発明はかかる従来の課題に鑑みて成されたもので、蝶番ピンを容器本体および蓋体と同様に合成樹脂製として、その取り外しを不要にして分別収集を容易にするとともに、合成樹脂製とした上記蝶番ピンを容器本体および蓋体の少なくともいずれか一方と同色、ひいては同材質として、従来の金属製ピンでは得られない着色、質感の点から、化粧料容器の外観を向上できるようにした化粧料容器を提供することを目的とする。

## 【0006】

【課題を解決するための手段】 かかる目的を達成するために本発明の請求項1に示す化粧料容器は、化粧料が収納される合成樹脂製の容器本体と、該容器本体を開閉する合成樹脂製の蓋体とを備え、これら容器本体と蓋体の端部間に跨って該蓋体を開閉する蝶番ピンを挿通した化粧料容器において、上記蝶番ピンを合成樹脂で形成するとともに、該蝶番ピンの色を、上記容器本体および上記蓋体の少なくともいずれか一方と同色にする。

【0007】 また、本発明の請求項2に示す化粧料容器は、化粧料が収納される合成樹脂製の容器本体と、該容器本体を開閉する合成樹脂製の蓋体とを備え、これら容器本体と蓋体の端部間に跨って該蓋体を開閉する蝶番ピンを挿通するとともに、該容器本体および該蓋体の少なくともいずれか一方が透明体で形成される化粧料容器において、上記蝶番ピンを合成樹脂で形成するとともに、該蝶番ピンを、上記容器本体および上記蓋体の少なくともいずれか一方を形成する透明体と同色の透明体で形成する。

【0008】 更に、本発明の請求項3に示す化粧料容器は、上記蝶番ピンを、上記容器本体または上記蓋体と同材質で形成する。

【0009】 以上の構成により本発明の化粧料容器の作用を以下述べると、請求項1では容器本体と蓋体とを蝶着する蝶番ピンを、これら容器本体および蓋体と同様に合成樹脂で形成したので、化粧料容器をゴミとして廃棄する際に、その都度蝶番ピンを取り外す必要が無くなり、分別収集が容易になる。また、蝶番ピンの色を、容器本体および蓋体の少なくともいずれか一方と同色にしたので、蝶番ピンを取り付けた状態でこの蝶番ピンの端面が周りの色合いに溶け込んで目立たなくなり、これにより着色の面から化粧料容器の外観を向上できて商品価値を高めることができる。

【0010】 また、請求項2では上記請求項1と同様に、蝶番ピンを容器本体および蓋体と同様に合成樹脂で形成したので、分別収集が容易になる。また、容器本体または蓋体の少なくとも一方が透明体で形成される化粧

料容器に対して、蝶番ピンを、容器本体および蓋体の少なくともいずれか一方を形成する透明体と同色の透明体で形成したので、容器本体または蓋体が透明体であっても蝶番ピンが一体に看取される。これにより、透明部分を有する化粧料容器の外観を向上できて商品価値を高めることができる。

【0011】更に、請求項3では、蝶番ピンを、容器本体または蓋体と同材質で形成したので、同材質である容器本体または蓋体と蝶番ピンの陰型を同一の成形型に形成して同時に成形することができ、成形工数を削減できるとともに、成形型に要するコストを低下できて、製品単価の低廉化を達成することができる。また、蝶番ピンがその周りと材質的に溶け込んで目立たなくなり、これにより質感の面から化粧料容器の外観を向上できて商品価値を高めることができる。

【0012】

【発明の実施の形態】以下、本発明の実施形態を添付図面を参照して詳細に説明する。図1から図7は本発明の化粧料容器の一実施形態を示し、図1は蝶番ピンを分離した化粧料容器を背面から見た透視斜視図、図2は蝶番ピン部分から切断した断面平面図、図3は中央断面側面図、図4は蝶番ピンの拡大斜視図、図5は蝶番ピンの拡大端面図、図6は蝶番ピンの取付け状態を示す要部拡大平面図、図7は蝶番ピンの取付け状態の他例を示す要部拡大平面図である。

【0013】図1から図3に示すように本実施形態の化粧料容器10は、化粧料Pを収納するために皿状に形成された容器本体12と、この容器本体12を開閉する蓋体14とを備え、これら容器本体12および蓋体14はそれぞれ合成樹脂によって形成される。

【0014】容器本体12の後端部（図1中手前側）には両側端部から一対の第1突起部16が突設されるとともに、蓋体14の後端部中央にはこれら第1突起部16間に嵌合される第2突起部18が突設される。そして、これら第1突起部16と第2突起部18とを嵌合した状態で、両側から一対の蝶番ピン20を第1、第2突起部16、18両者に跨って挿通することによりヒンジ22が構成され、このヒンジ22、つまり蝶番ピン20を中心に蓋体14は開閉自在に蝶着される。

【0015】上記容器本体12と上記蓋体14の前端部（図3中左端部）間にはフック24が構成され、このフック24の係合状態で蓋体14の開閉状態が保持される。上記フック24は、容器本体12の前端部に形成した凹部12aの後壁に形成した第1突起24aと、蓋体14の前端部から垂設した第2突起24bとで構成され、該第2突起24bの弾発力をもってこれら第1突起24aと第2突起24bとは係脱可能となっている。

【0016】また、上記蓋体14の裏面には、この蓋体14の開閉状態で上記容器本体12の上端に密接する所定厚さをもったスペーサ26が取り付けられ、上記化粧

料Pが収納される容器本体12内を密閉するようになっている。該スペーサ26としてはパッキングとして構成してもよく、また、化粧鏡としてもよい。

【0017】上記蝶番ピン20は、図4に示すように全長に亘って同径の細長い棒状に形成され、その断面形状は図5に示すように周方向に適宜間隔を隔てて平面20aを形成した非円形断面となっている。一方、上記第1突起部16および第2突起部18に形成されるピン穴16a、18aは円形断面として形成され、この円形断面のピン穴16a、18aに、非円形断面の上記蝶番ピン20が密接して圧入される。また、図2に示すように上記ピン穴16aの外方端部には所定長さLに亘って、蝶番ピン20より若干大径ののぞき穴16bが形成され、該のぞき穴16bが蝶番ピン20を挿入する際のガイド穴として機能する。

【0018】ここで、該蝶番ピン20は上記容器本体12および上記蓋体14と同様に合成樹脂によって形成してある。そして、このように合成樹脂で形成した蝶番ピン20は、これの外方端部20bが位置する第1突起部16、つまり容器本体12と同色に形成するとともに、同材質の合成樹脂によって形成してある。

【0019】即ち、本実施形態では容器本体12および蓋体14は、成形型を用いて射出成形するようになっており、この射出成形するに適する合成樹脂の材質としては複数種類が存在し、例えば、ポリプロピレン、ABS、スチロール、AS等の材質があり、一般にこれら複数種類の材質から適宜選択して上記容器本体12および上記蓋体14が形成される。そして、本実施形態では上記容器本体12と同材質および同色で上記蝶番ピン20が形成されることになる。また、上記蓋体14は容器本体12と同材質で形成しても良いし、また、異なる材質で形成しても良いが、特に同材質で形成する方が望ましい。

【0020】ここで、射出成形に用いられる上記合成樹脂の機械的性質を示すと、ポリプロピレンでは、引張降伏強さが240～300 (Kgf/cm<sup>2</sup>)、曲げ弾性率が9,500～11,500 (Kgf/cm<sup>2</sup>)、衝撃強さが4.5～18 (Kgf・cm/cm)程度のものである。ABSでは、引張強さが410～600 (Kg/cm<sup>2</sup>)、曲げ弾性率が18,000～28,500 (Kg/cm<sup>2</sup>)、衝撃強さが5～20 (Kg・cm/cm)程度のものである。スチロールでは、引張強さが3,000～6,300 (p.s.i.)、曲げ強さが4,500～8,100 (p.s.i.)、衝撃強さが0.4～1.1 (ft・lb/in)程度のものである。ASでは、引張強さが740～820 (Kg/cm<sup>2</sup>)、曲げ強さが1,000～1,100 (Kg/cm<sup>2</sup>)、衝撃強さが1.4～1.7 (Kg・cm/cm)程度のものである。

【0021】以上の構成により本実施形態の化粧料容器10にあつては、それぞれ合成樹脂の射出成形により形

成された容器本体12と蓋体14とは、図1に示したようにピン穴16a、18aが同軸配置されるように第1突起部16と第2突起部18とを配置し、この状態で蝶番ピン20が図6に示すように治具30を介してピン穴16a、18a間に打ち込まれる。このとき、ピン穴16aにはのぞき穴16bが形成されるので、蝶番ピン20がピン穴16aにスムーズに案内され、該蝶番ピン20の挿入作業が容易になる。また、蝶番ピン20が合成樹脂で形成されることにより、図7に示すように打込み時に屈曲した場合にも、この屈曲が上記のぞき穴16bによって規制されるため、大きく変形することなく蝶番ピン20をピン穴16a内に案内することができる。

【0022】そして、上記蝶番ピン20は第1、第2突起部16、18に跨って圧入状態で挿入されることにより、蓋体14の開閉時にはこれら第1、第2突起部16、18のいずれか一方で蝶番ピン20が固定され、他方と蝶番ピン20とが所定の回転抵抗をもって相対回転される。このため、この回転抵抗により蓋体14はフリーストップ機能が付加され、任意の回転位置で静止させることができる。特に、蝶番ピン20とピン穴16a、18aとの接触が、弾塑性的な性質を有する合成樹脂同士との摩擦接触作用によることから、柔らかなタッチのフリーストップ性能を得ることができる。このとき、蝶番ピン20が複数の平面20aをもって非円形断面として形成されるため、これら平面20a部分で相対回転時の摩擦により発生する応力を逃がすことができ、これにより蝶番ピン20の耐摩耗性や耐ねじり変形能などの耐久性を向上することができる。

【0023】ところで、上記蝶番ピン20は容器本体12および蓋体14と同様に合成樹脂で形成したので、化粧料Pの使用済み等によって化粧料容器10をゴミとして分別収集により廃棄する際に、その都度ヒンジ22部分を破壊するなどの余分な作業によって蝶番ピン20を取り外す必要が無くなるため、分別収集が著しく容易になる。

【0024】また、上記蝶番ピン20を少なくとも容器本体12と同色に形成したので、蝶番ピン20の端面が周りの色合いに溶け込んで目立たなくなり、これにより着色の面から化粧料容器10の外観を向上できて商品価値を高めることができる。

【0025】更に、上記蝶番ピン20を容器本体12と同材質で形成したので、これら容器本体12と蝶番ピン20の陰型を同一の成型型に形成して同時に射出成形することができ、成形工数を削減できるとともに、成型型に要するコストを低下できて、製品単価の低減化を達成することができる。このとき、容器本体12と蓋体14とを同色かつ同材質で形成した場合には、これら容器本体12、蓋体14および上記蝶番ピン20を同一の成型型で射出成形できるため、化粧料容器10の更なる低減化を達成することができる。また、蝶番ピン20がその

周りと材質的にも溶け込んで目立たなくなり、これにより質感の面からも化粧料容器10の外観を向上できて商品価値を高めることができる。

【0026】上記ヒンジ22部分では、最外側に第1突起部16が配置される関係上、該蝶番ピン20の外方端部20bがこの第1突起部16に位置することから、これら容器本体12と蝶番ピン20とを同色、同材質で形成する場合を開示したが、蓋体14から突設される第2突起部18がヒンジ22部分の最外側に配置される場合は、蝶番ピン20は蓋体14と同色かつ同材質で形成されることになる。

【0027】ところで、上記容器本体12および上記蓋体14は不透明体で形成するのみでなく、透明の合成樹脂によって形成することによっても化粧料容器10の意匠価値を高めることができる。即ち、容器本体12および蓋体14の少なくとも一方、例えば化粧料Pが透視して見えるように蓋体14を透明体で形成した場合には、蝶番ピン20が該蓋体14を透視して見えるようになるが、このような場合には、該蝶番ピン20を、蓋体14と同色の透明体で形成すればよい。

【0028】従って、この場合は透明体の蓋体14を通して蝶番ピン20が透視して見えることになるが、これら両者が同色の透明体で形成されることにより、両者が視覚的に一体に溶け込んで看取されるため、金属製の場合と異なり、蝶番ピン20のみが浮き上がって目立つことはなく、これにより透明部分を有する化粧料容器10の外観を良好に保つことができる。

【0029】また、上記蝶番ピン20の断面形状については、図5において平面20aを形成することにより非円形状に形成する場合を開示したが、この非円形断面の形状はそれ以外に多くの断面形状を考えることができ、例えば、図8に示すように外周に凸条20cを形成したり、図9に示すように外周面に曲率変化部分20dを形成することができ、これらにあっても同様の機能を確保することができる。

【0030】図10から図12は本発明の他の実施形態を示し、上記実施形態と同一構成部分に同一符号を付して重複する説明を省略して述べる。図10はヒンジ部分から切断した断面平面図、図11は中央断面側面図、図12は蝶番ピンの取付け状態を示す要部拡大平面図である。

【0031】即ち、この実施形態が上記実施形態と主に異なる点は、第1突起部16に形成したピン穴16aののぞき穴16bの長さLを、少なくとも蝶番ピン20の長さと同様かあるいはそれ以上に形成した点にある。

【0032】従って、この実施形態では蝶番ピン20をピン穴16aに打ち込む際に、該蝶番ピン20の全体が上記のぞき穴16b内に収納されるため、この蝶番ピン20の外方端部を治具30で押圧する際、蝶番ピン20が屈曲してしまうことを防止できる。このため、治具30

0で蝶番ピン20をより強く押圧できるため、蝶番ピン20の取付けを短時間のうちに完了でき、その組み付け作業性を大幅に向上することができる。

【0033】勿論、この実施形態にあっても上記蝶番ピン20は上記第1突起部16を突設した容器本体12と同色かつ同材料で形成し、化粧料容器10の外観を向上できるとともに、低酸化を図ることができるようにしている。また、蓋体14が透明体で形成される場合は、蝶番ピン20を蓋体14と同色の透明体で形成することが望ましい。

【0034】ところで、上記各実施形態では一般的に最も簡単な構造の化粧料容器10を例にとって説明したが、勿論この化粧料容器10に限ることなく、容器本体12内に化粧料の詰替用中皿を設けたものや化粧具の収納部を設けたもの、また、レフィル容器を収納する形態のもの、更にその他の機能を備えることは自由であり、要するに、それぞれが合成樹脂製の容器本体12と蓋体14とが蝶番ピン20でヒンジ結合される化粧料容器であれば本発明を適用することができ、更には、同様な構成のレフィル容器に対しても本発明を適用することができ、また、ヒンジ22の構成としても、蓋体14の第2突起部18を一对設け、それらの間に容器本体12の第1突起部16を配置することもできる。

#### 【0035】

【発明の効果】以上説明したように本発明の請求項1の化粧料容器にあつては、容器本体と蓋体とを蝶着する蝶番ピンを、これら容器本体および蓋体と同様に合成樹脂で形成したので、化粧料容器をゴミとして廃棄する際に、その都度蝶番ピンを取り外す必要が無くなり、分別収集を容易に行うことができる。

【0036】また、蝶番ピンの色を、容器本体および蓋体の少なくともいずれか一方と同色にしたので、蝶番ピンを取り付けた状態でこの蝶番ピンの端面が周りの色合いに溶け込んで目立たなくなり、これにより着色の面から化粧料容器の外観を向上できて商品価値を高めることができる。

【0037】また、本発明の請求項2の化粧料容器にあつては、上記請求項1と同様に、蝶番ピンを容器本体および蓋体と同様に合成樹脂で形成したので、分別収集を容易化できる。

【0038】また、容器本体または蓋体の少なくとも一方が透明体で形成される化粧料容器に対して、蝶番ピンを、容器本体および蓋体の少なくともいずれか一方を形成する透明体と同色の透明体で形成したので、容器本体または蓋体が透明体であっても蝶番ピンが一体に看取されることとなり、これにより透明部分を有する化粧料容

器の外観を向上できて商品価値を高めることができる。

【0039】更に、本発明の請求項3の化粧料容器にあつては、蝶番ピンを、容器本体または蓋体と同材質で形成したので、同材質である容器本体または蓋体と蝶番ピンの陰型を同一の成型型に形成して同時に成形することができ、成形工数を削減できるとともに、成型型に要するコストを低下できて、製品単価の低酸化を達成することができる。

【0040】また、蝶番ピンがその周りと同材質的に溶け込んで目立たなくなり、これにより質感の面から化粧料容器の外観を向上できて商品価値を高めることができる。

#### 【図面の簡単な説明】

【図1】本発明の一実施形態を示す蝶番ピンを分離した化粧料容器を背面から見た透視斜視図である。

【図2】図1の化粧料容器を蝶番ピン部分から切断した断面平面図である。

【図3】図1の化粧料容器の中央断面側面図である。

【図4】図1の化粧料容器に適用可能な蝶番ピンの拡大斜視図である。

【図5】図4の蝶番ピンの拡大端面図である。

【図6】図1の化粧料容器への蝶番ピンの取付け状態を示す要部拡大平面図である。

【図7】図1の化粧料容器への蝶番ピンの取付け状態の他例を示す要部拡大平面図である。

【図8】本発明に適用可能な他の蝶番ピンの拡大端面図である。

【図9】本発明に適用可能なさらに他の蝶番ピンの拡大端面図である。

【図10】本発明の他の化粧料容器の実施形態を示すヒンジ部分から切断した断面平面図である。

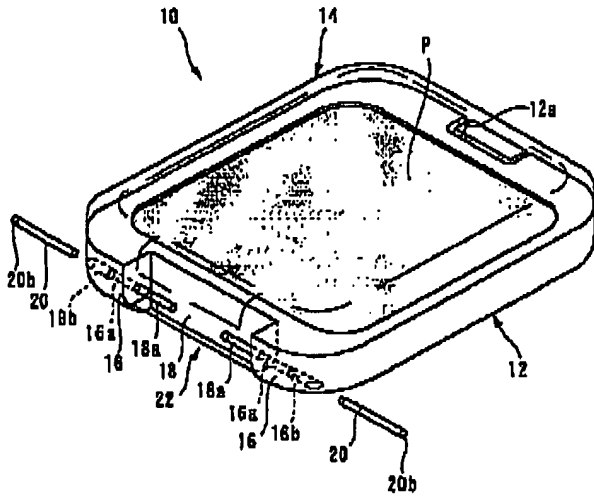
【図11】図10の化粧料容器の中央断面側面図である。

【図12】図10の化粧料容器への蝶番ピンの取付け状態を示す要部拡大平面図である。

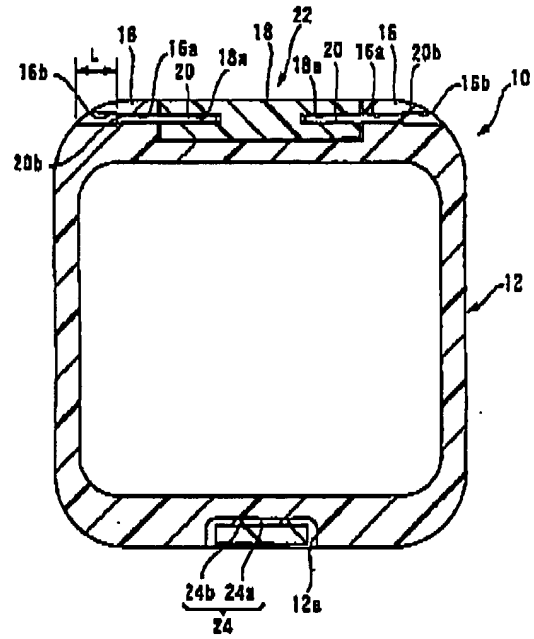
#### 【符号の説明】

- 10 化粧料容器
- 12 容器本体
- 14 蓋体
- 16 第1突起部
- 16a ピン穴
- 18 第2突起部
- 18a ピン穴
- 20 蝶番ピン
- 22 ヒンジ

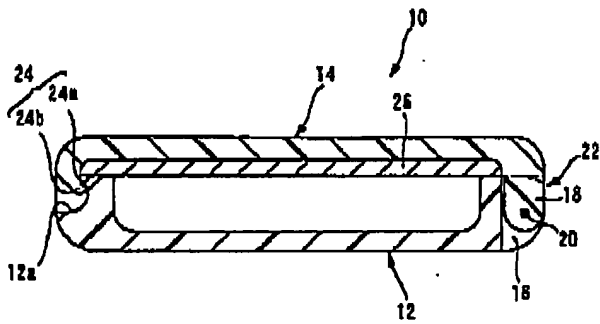
【図 1】



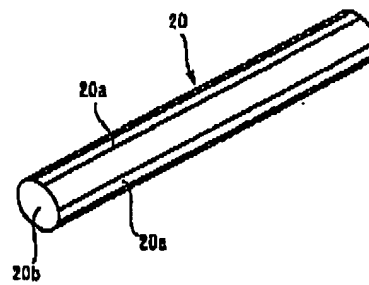
【図 2】



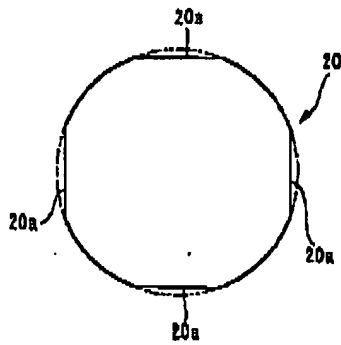
【図 3】



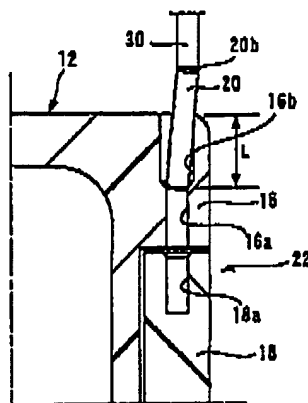
【図 4】



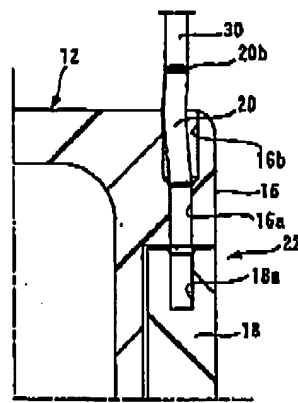
【図 5】



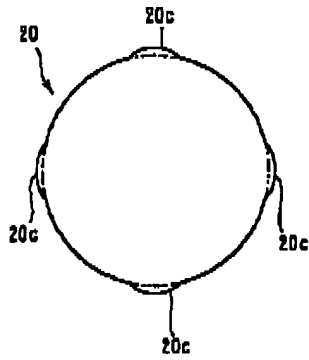
【図 6】



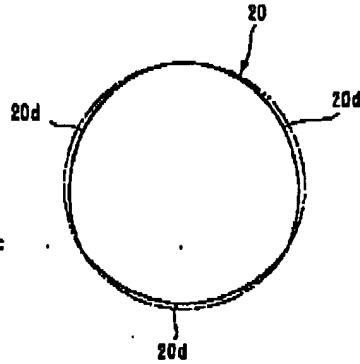
【図 7】



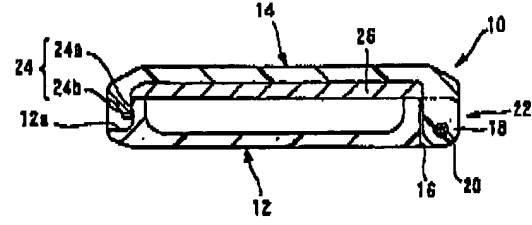
【図8】



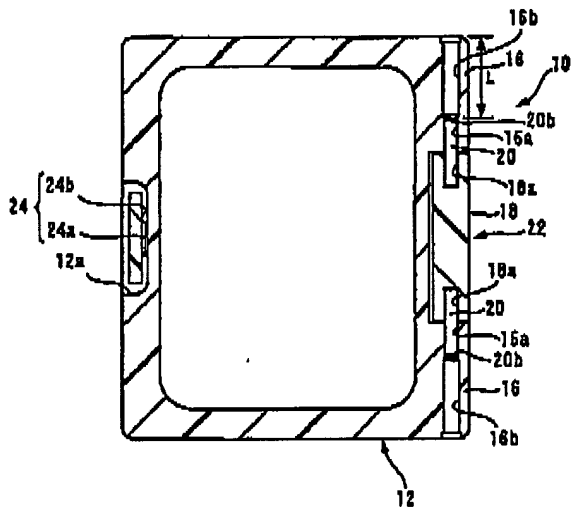
【図9】



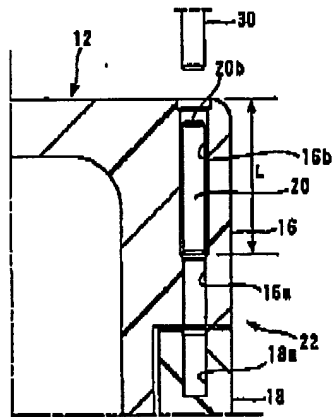
【図11】



【図10】



【図12】





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